

Rabbit ERAB Polyclonal Antibody | anti-ERAB antibody

ERAB Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329383	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (86%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (89%), Dog (100%)	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

ERAB; Polyclonal Antibody; ERAB Antibody; 17 beta hydroxysteroid dehydrogenase 10; 17 beta hydroxysteroid dehydrogenase type 10; 17-beta-HSD 10; 17-beta-hydroxysteroid dehydrogenase 10; 17b HSD10; 3 hydroxy 2 methylbutyryl CoA dehydrogenase; 3 hydroxyacyl CoA dehydrogenase type 2; 3 hydroxyacyl CoA dehydrogenase type II; 3-hydroxy-2-methylbutyryl-CoA dehydrogenase; 3-hydroxyacyl-CoA dehydrogenase type II; 3-hydroxyacyl-CoA dehydrogenase type-2; AB binding alcohol dehydrogenase; ABAD; Ads9; Amyloid beta binding polypeptide; Amyloid beta peptide binding alcohol dehydrogenase; Amyloid beta peptide binding protein; CAMR; DUPXp11.22; Endoplasmic Reticulum Amyloid Binding Protein; Endoplasmic reticulum associated amyloid beta peptide binding protein; Endoplasmic reticulum-associated amyloid beta-peptide-binding protein; ER associated amyloid beta-binding protein; HADH 2; HADH2; HCD 2; HCD2; HCD2_HUMAN; Hsd17b10; Hydroxyacyl CoA Dehydrogenase type II; Hydroxyacyl Coenzyme A dehydrogenase type II; Hydroxysteroid (17 beta) dehydrogenase 10; Mental retardation X linked syndromic 11; MHBD; Mitochondrial L3 Hydroxyacyl CoA Dehydrogenase; Mitochondrial ribonuclease P protein 2; Mitochondrial RNase P protein 2; MRPP2; MRX17; SCHAD; SDR5C1; Short chain dehydrogenase/reductase family 5C member 1; Short chain L 3 hydroxyacyl CoA dehydrogenase type 2; Short chain type dehydrogenase/reductase XH98G2; Short-chain type dehydrogenase/reductase XH98G2; Type 10 17b HSD; Type 10 17beta hydroxysteroid dehydrogenase; Type II HADH; XH98G2; anti-ERAB antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (86%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (89%), Dog (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	ERAB Antibody detects endogenous levels of total ERAB. Tissue Specificity: Ubiquitously expressed in normal tissues but is overexpressed in neurons affected in AD.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ERAB antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ERAB, corresponding to a region within the internal amino acids.
Conjugation	Unconjugated
Fragment	Fab fragment
Subunit Structure	Homotetramer. Component of mitochondrial ribonuclease P, a complex composed of TRMT10C/MRPP1, HSD17B10/MRPP2 and PRORP/MRPP3. Interacts with TRMT10C/MRPP1; forming the MRPP1-MRPP2 subcomplex of the mitochondrial ribonuclease P complex.
Similarity	Belongs to the short-chain dehydrogenases/reductases (SDR) family.
Subcellular Location	Mitochondrion.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

Staining LOVO by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from mouse spleen, rat brain, using ERAB Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-ERAB antibody	Mitochondrial dehydrogenase that catalyzes the beta-oxidation at position 17 of androgens and estrogens and has 3-alpha-hydroxysteroid dehydrogenase activity with androsterone. Catalyzes the third step in the beta-oxidation of fatty acids. Carries out oxidative conversions of 7-alpha-OH and 7-beta-OH bile acids. Also exhibits 20-beta-OH and 21-OH dehydrogenase activities with C21 steroids. By interacting with intracellular amyloid-beta, it may contribute to the neuronal dysfunction associated with Alzheimer disease (AD). Essential for structural and functional integrity of mitochondria.In addition to mitochondrial dehydrogenase activity, moonlights as a component of mitochondrial ribonuclease P, a complex that cleaves tRNA molecules in their 5'-ends. Together with HSD17B10/MRPP2, forms a subcomplex of the mitochondrial ribonuclease P, named MRPP1-MRPP2 subcomplex, which displays functions that are independent of the ribonuclease P activity. The MRPP1-MRPP2 subcomplex catalyzes the formation of N (1)-methylguanine and N (1)-methyladenine at position 9 (m1G9 and m1A9, respectively) in tRNAs; HSD17B10/MRPP2 acting as a non-catalytic subunit. The MRPP1-MRPP2 subcomplex also acts as a tRNA maturation platform: following 5'-end cleavage by the mitochondrial ribonuclease P complex, the MRPP1-MRPP2 subcomplex enhances the efficiency of 3'-processing catalyzed by ELAC2, retains the tRNA product after ELAC2 processing and presents the nascent tRNA to the mitochondrial CCA tRNA nucleotidyltransferase TRNT1 enzyme. Functions in mitochondrial tRNA maturation. Part of mitochondrial ribonuclease P, an enzyme composed of MRPP1/RG9MTD1, MRPP2/HSD17B10 and MRPP3/KIAA0391, which cleaves tRNA molecules in their 5'-ends. By interacting with intracellular amyloid-beta, it may contribute to the neuronal dysfunction associated with Alzheimer disease (AD).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	83715985
NCBI GeneID	3028
NCBI Accession #	NP_001032900.1
NCBI GenBank Nucleotide #	NM_001037811.2
UniProt Accession #	Q99714; Q5H927; Q8TCV9; Q96HD5
Molecular Weight	26,923 Da
NCBI Official Full Name	3-hydroxyacyl-CoA dehydrogenase type-2 isoform 2
NCBI Official Synonym Full Names	hydroxysteroid (17-beta) dehydrogenase 10
NCBI Official Symbol	HSD17B10
NCBI Official Synonym Symbols	ABAD; CAMR; ERAB; HCD2; MHBD; HADH2; MRPP2; MRX17; MRX31; SCHAD; MRXS10; SDR5C1; 17b-HSD10; DUPXp11.22
NCBI Protein Information	3-hydroxyacyl-CoA dehydrogenase type-2; mitochondrial RNase P subunit 2; AB-binding alcohol dehydrogenase; mitochondrial ribonuclease P protein 2; 3-hydroxy-2-methylbutyryl-CoA dehydrogenase; short chain type dehydrogenase/reductase XH98G2; amyloid-beta p
UniProt Protein Name	3-hydroxyacyl-CoA dehydrogenase type-2
UniProt Gene Name	HSD17B10

UniProt Synonym Gene Names	ERAB; HADH2; MRPP2; SCHAD; XH98G2; 17-beta-HSD 10; Mitochondrial RNase P protein 2
UniProt Entry Name	HCD2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/erab-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-western-blot-elisa/329383>